Course syllabus for

Scientific Methods 3-Quantitative and Qualitative Methods, 9 credits

Vetenskap 3-kvantitativ och kvalitativ metod, 9 hp
This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.
Please note that the course syllabus is available in the following versions:
Autumn2012 , Autumn2013 , Autumn2014 , Autumn2015 , Autumn2016 , Spring2024

Course code	1AU043
Course name	Scientific Methods 3-Quantitative and Qualitative Methods
Credits	9 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Audiology
Level	G2 - First cycle 2
Grading scale	Pass, Fail
Department	Department of Clinical Science, Intervention and Technology
Decided by	Programnämnd 4
Decision date	2012-05-03
Revised by	Programme Committee 4
Last revision	2014-04-28
Course syllabus valid from	Autumn 2014

Specific entry requirements

For admission to the course, it is required that the student has managed at least 105 HE credits from Semester 1-4.

Objectives

The course is included in a scientific streak which includes total of 15 HE credits that runs in parallel with the study programme. The general aim with the scientific streak is to provide the student knowledge research methodology and skills in scientific working methods. The specific aims of this course, Scientific methods 3, are to give the student basic knowledge in quantitative and qualitative methods and statistics.

The expected learning outcomes of the course
On completion of the course, the student should be able to:
- explain scientific theoretical concepts and different research traditions within the audiological subject

area
- explain and define different qualitative and quantitative methods and concepts
- apply statistical methods and hypothesis tests in calculations and arguments
- produce a project idea that can lead to a degree project
- present the project idea in poster form. Focus on hypothesis and research question as well as study design with quantitative or qualitative methods.

Content

The course consists of two modules:

Scientific concepts and research methodology, 1.5 hp This module gives an introduction to scientific concepts, so to give an understanding of the different research traditions that exist within the audiological subject area. Furthermore, evidence-based research method is treated. The module contains lectures about basic scientific concepts with a focus on qualitative methodology. Seminar and group assignments on interview techniques, collection of data and data processing of interviews, evidence-based research and ethics. **Quantitative method and statistics, 4.5 hp** This module focuses on quantitative methods with an emphasis on descriptive statistics and hypothesis testing linked to the subject area audiology. The module is examined in the form of a take-home examination (peer-review) which also gives training in critical review of a report. The module also gives an introduction to statistical programs. **Pilot project and Project idea, 3 hp** This module contains seminar and group assignments on collection of data and data processing of questionnaires. Advanced study in an optional part of the main field of study audiology based on scientific articles and literature in the area and practical work in a smaller pilot project. The project work gives practice in how to plan and set up a study. The project work is presented in the form of a poster. As a support for the pilot project and the design of the project idea, a follow-up database literature search exercise is carried out, in for example pubmed, web of science and similar at the KI libraries.

Teaching methods

Lectures, group assignments, exercises and seminars.

Group assignments, exercises and seminars are compulsory. If absent from a compulsory part, the student is responsible for contacting the course coordinator for complementary assignments.

The course coordinator decides how absence from compulsory course elements can be made up. Study results cannot be reported until the student has participated in compulsory course elements or compensated for any absence in accordance with instructions from the course coordinator. Absence from a compulsory course element could mean that the student can not retake the element until the next time the course is offered.

Examination

Scientific concepts and research methodology 1.5 credits
Active participation in compulsory seminars
Self-tests about scientific theoretical concepts

Quantitative methodology and statistics 4.5 credits
Self-tests about statistical concepts
An individual take-home examination with application of statistical methods based on articles
Peer-review of take-home examination

Pilot project and Project idea 3 credits
An oral poster presentation of the independently implemented project work including the project idea, hypothesis and problem specification in preparation for Scientific methods 4 and the Degree Project.

For a Pass grade in the course, attendance and active participation in compulsory parts are also required.

Students who do not pass a regular examination are entitled to re-sit the examination on five more occasions. Each time the course is offered, one regular examination and two additional examinations are given. Each occasion the student participates in the same test counts as an examination. Supplementary addition to a written assignment is counted as one examination. Submission of a blank exam paper is regarded as an In case a student is registered for an examination but does not attend, this is not regarded as an examination.

Transitional provisions

Examination may take place under the previous reading list during a period of one year after the renewal of the reading list. Examination will be provided during a period of two years after a close-down of the course.

Other directives

The course evaluation will be carried out according to the guidelines that are established by the Board of education. The course evaluation will be carried out both through a written course evaluation at the end of the course, and through an oral course forum at least once in connection with the course, during which the students can state their opinions.

Literature and other teaching aids

Mandatory literature

Ejlertsson, Göran

Statistik för hälsovetenskaperna

2., moderniserade och utök. uppl. : Lund : Studentlitteratur, 2012 - 303 s.
ISBN:978-91-44-07048-3 LIBRIS-ID:13374003
URL: Övningsmaterial
Library search

Harris, Michael; Taylor, Gordon

Medical statistics made easy 2

2. ed. : Bloxham : Scion, cop. 2008. - xii, 115 p.
ISBN:978-1-904842-55-2 (pbk.) LIBRIS-ID:11894343
Library search

Nordenström, Jörgen

Evidensbaserad medicin i Sherlock Holmes fotspår

4., [omarb.] uppl. : Stockholm : Karolinska University Press, 2007 - 106 s.
ISBN:978-91-85565-12-2 LIBRIS-ID:10352883
Library search

Trost, Jan

Enkätboken

4., uppdaterade och utök. uppl. : Lund : Studentlitteratur, 2012 - 178 s.
ISBN:978-91-44-07643-0 LIBRIS-ID:12751087
Library search

Kvale, S.; Brinkman, S.

Den kvalitativa forskningsintervjun

2 upp. : Lund : Studentlitteratur AB, 2009
ISBN:91-44-05598-6
Library search

Scientific papers and other relevant materials may be added.